S/190/60/002/008/006/017 B004/B054

AUTHORS:

Baramboym, N. K., Sautin, B. V.

TITLE:

Mechanical-chemical Modification of CKC-30 (SKS-30)

PERIODICAL:

Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 8,

pp. 1196-1200

TEXT: In the introduction, the authors discuss Western publications on the effect of mechanical cracking of natural rubbers on addition of maleic anhydride (MA), and the structural schemes suggested. They attempted to check this process on synthetic rubbers of Soviet origin, and in the present paper report on the result of mechanical cracking of CKC-30 (SKS-D) rubber and polyisobutylene in the presence of MA. The rubber, or the polyrubber and polyisobutylene in the presence of MA. The rubber, or the polyrusobutylene, respectively, were rolled with additions of 1.3-5% of MA for 2, 10, or 30 minutes. The initial products were not purified from inhibitory impurities, nor did the process take place in an inert gas atmosphere. This is explained by the fact that a sufficient number of macroradicals are formed so that their loss due to interaction with inhibitors or atmospheric oxygen can be neglected. Besides, the experiments

Card 1/2

Mechanical—chemical Modification of CKC-30 S/190/60/002/008/006/017 (SKS-30)

conducted under such conditions are more illustrative in the practice. A difference was observed between the reaction of natural rubber and that of SKS-30 with MA. While natural rubber becomes brittle and the mixture crumbles, the plasticity of SKS-30 increases. The vulcanizates made of plasticized SKS-30, with lampblack as filler, showed increased strength with increasing addition of MA and duration of the mechanical treatment of the initial SKS-30. On the assumption that on addition of ethylene glycol or zinc oxide in the presence of moisture the anhydride ring is opened, and carboxyl-containing rubbers are formed, the modified SKS-30 was pressed with 5% glycol or ZnO at 180°C and a pressure of 100 atm for 60 minutes. The swelling property in benzene decreased, which confirmed the formation of a dense network with increasing MA content. Polyisobutylene treated with ethylene glycol or hexamethylene diamine at 180°C and 100 atm, remained soluble in benzine. On addition of MA, however, its swelling decreased with increasing MA content. This confirmed the formation of free macromolecules under the action of MA. There are 2 figures, 2 tables, and 6 non-Soviet references.

ASSOCIATION: Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti

(Moscow Technological Institute of the Light Industry)

SUBMITTED:

March 24, 1960

Card 2/2

# BARAMBOYM, N.K. [Baramboym, N.K.]

Problems of the mechanical chemistry of high polymers. Analele chimie 15 no.1:24-36 Ja/Mr \*60. (EEAI 9:8) (Mechanical chemistry) (Polymers and polymerization)

BARAMBOYM, N.K., doktor khimicheskikh nauk, prof.; PYTOV, G.K., inzh.

Mechanical and chemical modification of polyvinyl chloride, Nauch.trudy MRILP no.18:48-51 '60. (MIRA 15:2)

l. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti. (Ethylene)

ZAYTSEVA, Ye.V., insh.; BARAMBOYM, N.K., doktor khimicheskikh nauk, prof.

Effect of the composition of the solution and of the drying temperature on the structure of polyaminde films. Izv. vys. ucheb. zav.; tekh. leg. prom. no.2:25-30 160. (MIRA 13:11)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy tekhnologii iskusstvennoy kozhi.

(Leather, Artificial) (Polyamides)

### BARAMBOYM, N.K.; GORODILOV, V.N.

Molecular weight of carbochain polymers as a function of dispersity during their mechanical dispersion. Vysokom. soed. 2 no.2:197-199 F '60. (MIRA 13:11)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti.
(Polymers) (Molecular weights)

BARAMBOYM, Nikolay Konstantinovich; ANOKHIN, Viktor Vasil'yevich; RAYTBURD, L.L., red.; POSMETUKHIN, N.A., tekhn. red.

[Physics and chemistry of polymer materials of the shoe industry]
Fizika i khimila polimernykh materialov obuvnogo proizvodstva.
Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1961. 242 p. (MIRA 14:11)
(Shoe industry) (Polymers)

BR

# PHASE I BOOK EXPLOITATION SOV/5964

Baramboym, Nikolay Konstantinovich, Professor, Doctor of Chemical Sciences

Mekhanokhimiya polimerov; khimiya mekhanicheskikh protsessov pererabotki vysokopolimerov (Mechanochemistry of Polymers; the Chemistry of Mechanical Processes in the Reprocessing of High Polymers) Moscow, Gostekhizdat RSFSR, 1961. 250 p. 3800 copies printed.

Reviewers: G. L. Slonimskiy, Professor, Doctor of Chemical Sciences, and V. I. Alekseyenko, Candidate of Technical Sciences; Ed.: T. M. Minayeva; Tech. Ed.: T. A. Shapenkova.

PURPOSE: This book is intended for technical personnel of industrial enterprises which process polymer materials, personnel of scientific research organizations, and teachers and students at schools of higher education.

Card 1/

Mechanochemistry of Polymers (Cont.)

SOV/5964

COVERAGE: The monograph is said to be the first systematic presentation of data from Soviet and non-Soviet sources published up to 1960 on problems of the mechanochemistry of high polymers. In particular, it discusses 1) theoretical principles of mechanochemical processes; 2) their significance in producing film-forming materials, containers, paper, rubber goods, and articles from reclaimed materials; 3) the manufacture of products from graft and block copolymers; 4) synthetic fibers and plastics; 5) extension of the service life of films, synthetic fabrics, and various other articles made from polymers; and 6) utilization of industrial waste products. V. A. Kargin, A. A. Berlin, N. K. Baramboym, M. S. Akutin, [W. F.] Watson, [R. J.] Ceresa, and the author and his coworkers are credited with creating this new branch of science as a result of their research. The science deals with the formation of chemically active macromolecules resulting from mechanical stress on polymeric materials, and also with mechanical action produced by chemical reactions, e. g., muscular contraction. Ch. VIII was written by I. N. Sterligov, Engineer. There are 262 references, mainly Soviet.

Card 2/4

S/081/62/000/013/052/054 B160/B101

AUTHORS:

Baramboym, N. K., Popov, V. I.

TITLE:

Physical and chemical modification of CK5 (SKB) with maleic

anhydride

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 13, 1962, 643, abstract 13P290 (Nauchn. tr. Mosk. tekhnol. in-t legkoy prom-sti, no. 19,

1961, 54 - 58

TEXT: The introduction of maleic anhydride into (KG-40 (SKB-40) in cold rolls or in an extruder scarcely affects the plasticity of the mixture as compared with a control, but its solubility in aliphatic and aromatic hydrocarbons is reduced, the moisture absorption of SKB-40 rolled for 20 min with 6% maleic anhydride goes up to 85%, and it becomes possible to vulcanize the material with metal oxides. Vulcanizates of modified SKB-40 are not inferior to others as regards resistance and ageing, and their strength is slightly higher. [Abstracter's note: Complete translation.]

Card 1/1

#### "APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000103420018-2

L 12311-63

\$/081/63/000/005/068/075

AUTHOR:

Baramboym, N. K., Saltusova, Ye. P. and Cheremisinova, S. P.

TITLE:

The effect of the nature of adhesive materials on the temperature

conditions of adhesion

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 5, 1963, 618 abstract 57280

(Nauch. tr. Mosk. tekhnol. in.-t. legkoy prom-sti, 1961, no. 23,

71 - 74)

The relationships of the rate of heating of press plate and an TEXT: adhesive seam made of fast hardening resins, used in the shoe industry, as well as of changes in temperature as a function of the nature of pairs of the cemented materials (SM) during one-sided heating were investigated. The following materials were used as SM: undyed fabric (serge ticking) (1), shoe sole leather 4 mm in thickness (2), porous colored rubber 6 mm in thickness (3). Even under relatively slow simultaneous heating of the press plate and SM, a significant drop in temperature exists between them, the absolute value of which depends on the thickness of the material and its thermal insulation properties. If, after 1 hour, the temperature attained by press plate is 100°

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CIA-RDP86-00513R000103420018-2" APPROVED FOR RELEASE: 06/09/2000

L 12311-63

The effect of the nature of .....

() s/081/63/000/005/068/075

C, a drop in (1)  $\sim 5^{\circ}$  C, then for (2)  $\sim 45^{\circ}$  C and for (3)  $\sim 50^{\circ}$  C. The rate of temperature rise of the adhesive seam is influenced not only by the nature of the material, through which the heat is conducted, but also by the nature of the material of the glued pair. Acceleration of the processes of adhesion must be based, not on intensification of the heating effect, but in finding the cold hardening adhesives, the use of high frequency current for effective heating of the adhesive seam, finding of exothermic self-heating adhesives and the use of the electric shock effect in hardening. V. Glagolev.

[Abstractor's note: Complete translation]

Card 2/2

S/081/62/000/020/039/040 B144/B101

AUTHOR:

Baramboym, N. K.

TITLE:

Some regularities of the mechanical cracking of rigid

polymers

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 20, 1962, 591, abstract 20R18 (Nauchn. tr. Mosk. tekhnol. in-t legkoy

prom-sti, no. 21, 1961, 89-96)

TEXT: The experimental data are discussed that were obtained from the mechanical cracking of rigid polymers in  $N_2$  atmosphere and in air at

+50 to -70°C in ball and vibrating mills. A description is given of the regularities and the effect of various factors (chemical nature, temperature, molecular weight, nature of acceptors and liquid media, principle of the effect, and design particularities of the apparatus) on the mechanical-cracking process of rigid polymer system. [Abstracter's note: Complete translation.]

Card 1/1

BARAMBOYM, N.K., doktor khimicheskikh nauk, prof.; YEFREMYCHEVA, Ye.A., inzh.

Comparative study of adhesive compositions with a base of synthetic latexes. Izv.vys.ucheb.zev.; tekh.leg.prom. 3:34-37 (MIRA 15:6)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy fizicheskoy i kolloidnoy khimii. (Adhesives—Testing)

158200

2209

32354 s/190/62/004/001/017/020 B145/B147

AUTHOR:

Baramboym, N. K.

TITLE:

Mechanical degradation of polystyrene and polymethyl methacrylate in the presence of various acceptors

PERIODICAL:

Vysokomolekulyarnyye soyedineniya, v. 4, no. 1, 1962. 109-115

TEXT: The effect of various acceptors on the mechanical cracking of polystyrene and polymethyl methacrylate has been studied since the mechanical cracking of stiff polymers, in comparison with that of elastic polymers, has been insufficiently investigated so far. Diphenylamine (DPA), p-aminophenol (PAP), p-nitrophenol (PNP), pentachlorophenol (PCP), hydroquinone (HQ), α-naphthol (AN), α-naphthylamine (ANA), and atmospheric oxygen were used as acceptors. Vibratory mills designed and constructed by the VNIITISM were used for mechanical cracking. The cracking process took 120 sec with cooling (liquid N2) at 30-sec intervals. The concentration dependence of the intrinsic viscosity of solutions of the initial samples (polymer + 5% acceptor) and of solutions of the cracking products were determined and the solutions subjected to turbidi-Card 1/3

32354 \$/190/62/004/001/017/020 B145/B147

Mechanical degradation of ...

metric titration at the same time (solvent and precipitant, respectively. in the case of polystyrene: benzene and 50% ethanol; in the case of polymethyl methacrylate: acetone and cyclohexanone, respectively). The substances added as acceptors were found to have a specific effect on the theological behavior of the solutions of the initial samples, which is not due to the summation of the viscosities of acceptors and polymers. This is attributed to the occurrence of bonds between chains due to oxidation processes. Taking the degree of cracking, which manifests itself by an increase in viscosity of the solutions of the cracking products, as a measure for the activity of the acceptors, the acceptors range as follows: HQ , PAP >AN > DPA >ANA > PCP > O2 > PNP and HQ > PAP > ANA > DPA > O2 > PCP > AN > PNP. These sequences have been established according to the decrease in activity for polystyrene and polymethyl methacrylate, respectively. The differences between the two series, particularly with regard to the position of oxygen and AN, are ascribed to the relatively high stability of the resulting polystyrene percylde radical. The turbidimetric curves are also different. In the case of polystyrene, precipitation of the cracking products sets in at higher precipitant concentrations than in the case of the solutions of the Card 2/3

Mechanical degradation of ...

32354 \$/190/62/004/001/017/020 B145/B147

initial samples, whereas the case is inverse with polymethyl methacrylate. This result, together with the results of viscosity measurements, indicates that linear products are obtained by mechanical cracking of polystyrene, while branched products are obtained from polymethyl methacrylate. There are 2 figures, 1 table, and 2 references: 1 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: M. Picke, W. F. Watson, J. Polymer Sci., 9, 229, 1952.

ASSOCIATION:

Moskovskiy tekhnologicheskiy institut legkoy promysh-

lennosti (Moscow Technological Institute of Light Industry)

SUBMITTED:

February 7, 1961

Card 3/3

DINZBURG, B.N.; SAFRAY, B.A.; BARAMBOYM, N.K.

Modification of butadiene-styrene rubbers with thermosetting resins. Part 1. Vysokom.soed. 4 no.7:1019-1026 Jl '62. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut plenochnykh materialov i iskusstvennoy kozhi.

(Rubber, Synthetic) (Styrene polymers)

(Phenol condensation products)

BARAMBOYM, N.K., doktor khimicheskikh nauk, prof.; SALTUSOVA, Ye.P., inzh.; CHEREMISINOVA, S.P., studentka

Effect of the nature of the glued material on the temperature conditions of gluing. Nauch.trudy MTILP no.23:71-74 161.

(MTRA 15:9)

1. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo
tekhnologicheskogo instituta legkoy promyshlennosti.

(Shoe manufacture) (Gluing)

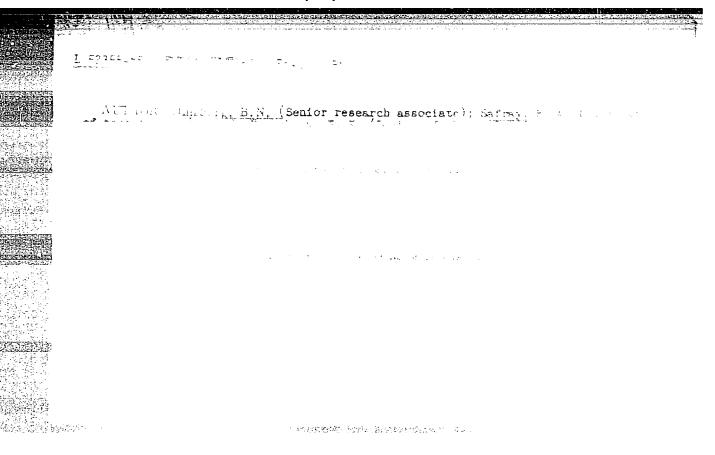
BARAMBOYM, N. K., doktor khimicheskikh nauk, prof.; CHESUNOVA, A. G., inzh.

Method of increasing the strength of thread joints of parts made with porous polymer materials. Izv. vys. ucheb. zav.; tekh. leg. prom. no.4:95-102 '62. (MIRA 15:10)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy fizicheskoy i kolloidnoy khimii.

(Boots and shoes, Rubber)

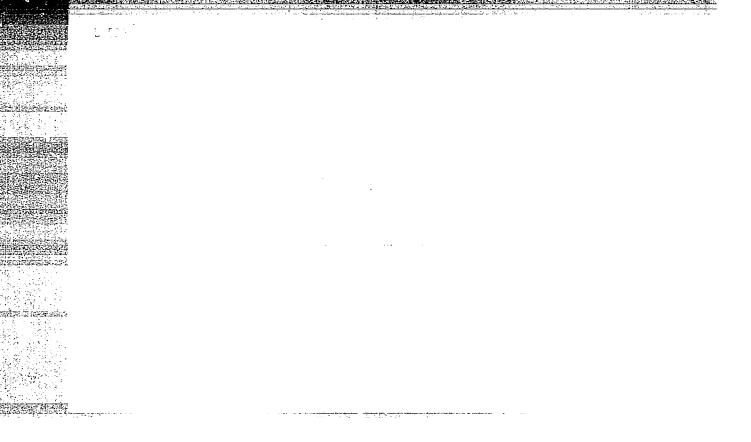
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## "APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000103420018-2



KURDUBOV, Yu.F., assistent; REBROVA, N.B., student; BARAMBOYM, N.K., doktor khim. nauk, prof.

Determining vulcanization accelerators by the method of paper chromatography. Nauch. trudy MTILP no.24:49-53 '62. (MTRA 16:7)

l. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti. (Rubber—Analysis) (Paper chromatography)

BARAMBOYM, N.K., doktor khim. nauk. prof.; VAYNSHTEYN, R.Ya., inzh.

Increasing the stiffness of clothing elements. Nauch. trudy MTILP no.24:53-57 '62. (MIRA 16:7)

l. Kafedry fizicheskoy, kolloidnoy khimii i tekhnologii shweynykh izdeliy Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

(Textile finishing) (Rubber, Synthetic)

BARAMBOYM, N.K., doktor khim. nauk, prof.; KARAS', R.G., inzh.

Investigating glued compositions. Nauch. trudy MTILP no.24: 57-60 '62. (MIRA 16:7)

l. Kafedry fizicheskoy, kolloidnoy khimii i tekhnologii obuvi Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti. (Adhesives) (Shoe manufacture)

BARAMBOYM, N.K., doktor khim. nauk, prof.; DARKHANOV, G.M., inzh.

Investigating the aqueous dispersions of polyamides. Nauch. trudy MTILP 25:129-133 '62. (MIRA 16:8)

1. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

BARAMBOYM, N.K., doktor khim. nauk, prof.; SOKOLOVA, N.K., inzh.

Investigating the mechanochemical derivatives of polyamides. Nauch. trudy MTILP 25:146-149 '62. (MIRA 16:8)

1. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

BARAMBOYM, N.K., doktor khim. nauk, prof.; MALOSHUK, Yu.S., assistent

Kinetics of the permeability to moisture and perosity.
Nauch. trudy MTILP 25:150-153 '62. (MIRA 16:8)

1. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

YEVSTRATOVA, N.M., student; GUBERNSKAYA, T.N., student; CHURINOVA, L.G., student; BARAMBOYM, N.K., doktor khimicheskikh nauk, prof.

Ion exchanging compositions containing thiol groups.
Nauch. trudy MTILP no.26:35-37 '62. (MIRA 17:5)

1. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

BARAMBOYM, N.K., doktor khim. nauk, prof.; GONCHAROVA, V.A., inzh.

Synthesis and investigation of hadrophilic copolymers of maleic anhydride. Nauch. trudy MTILP no.26:38-45 '62. (MIRA 17:5)

l. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

BARAMBOYM, N.K., doktor khimicheskikh nauk, prof.; NURIYEV, M.A., inzh.

Adhesive properties of water-soluble synthetic polymers.
Nauch. trudy MTILP no.26:77-80 '62. (MIRA 17:5)

l. Kafedra fizicheskoy khimii, kafedra kolloidnoy khimii i kafedra tekhnologii obuvi Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

BARAMBOYM, N.K., doktor khimicheskikh nauk, prof.; VEDENEYEVA, G.P., inzh.

Fastening of trimmings with adhesives. Nauch. trudy MTILP no.27: 188-190 '63. (MIRA 17:11)

1. Kafedra fizicheskoy khimii, kafedra kolloidnoy khimii i kafedra tekhnologii shveynykh izdeliy Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

ACCESSION NR: AP4042338

S/0138/64/000/007/0011/0015

AUTHOR: Dinzburg, B. N., Safry, B. A., Baramboy, N. K.

TITLE: Properties of vulcanizates from NBR rubbers combined with thermosetting resins

SOURCE: Kauchuk i rezina, no. 7, 1964, 11-15

TOPIC TAGS: NBR rubber, phenolic resin, synthetic rubber, novolak resin, resol resin, thermosetting resin, rubber SKN-18, rubber SKN-26, rubber SKN-40, NBR vulcanizate property, phenolic resin effect, urotropin effect, thermosetting master batch method, vulcanizate transparency

ABSTRACT: NBR rubbers SKN-18, SKN-26 and SKN-40 were combined with novolak resins #18, 15 and 17 or resol resins #76, 118, 214, 220, 236 and Bakelite A (100 parts by weight NBR rubber, 2 parts stearin, 5 parts zinc oxide, 2 parts sulfur, 3.5 parts Captax, 3 parts hard resin; urotropin, 0-15 parts by weight of resin) on 200 x 450 mixing rolls (friction 1.33), using standard (20min., roll temp. 30-50C) or thermosetting master batch

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ACCESSION NR: AP4042338

(20 min., 150C) methods. The vulcanization temperature was 155C. The vulcanizates were analyzed to determine the effects of the various resins on their properties and the comparative effectiveness of the two different methods. Results are tabulated and graphed (see Enclosure) and indicate that the physical and mechanical properties were improved substantially by addition of phenolic resins and urotropin as the curing agent. Transparent vulcanizates can be obtained with optimal proportions (10 parts by weight to 100 parts of resin) or urotropin. The thermosetting master batch method significantly increased the effectiveness of the use of phenolic resins in NBR rubbers, especially in increasing the strength and cold resistance of the vulcanizates. Orig. art. has: 4 graphs and 4 tables.

ASSOCIATION: Vsesoyuzny\*y nauchno-issledovatel'skiy institut plenochny\*kh materialov i iskusstvennoy kozhi (All-Union Scientific Research Institute for Film Materials and Artificial Leather)

SUBMITTED: 00

ENCL: 01

SUB CODE: MT

NO REF SOV: 006

OTHER: 004

Card<sup>2/3</sup>

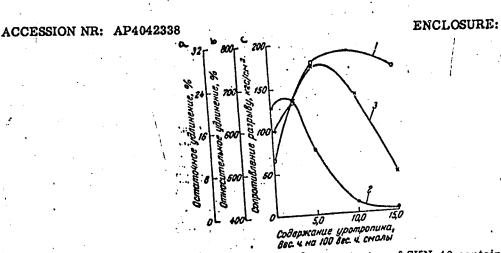
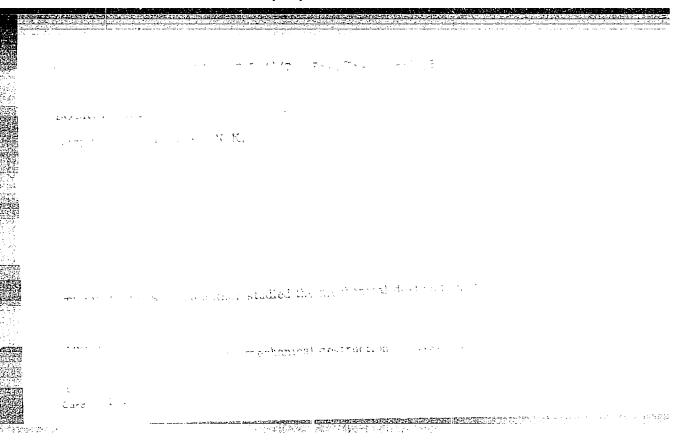
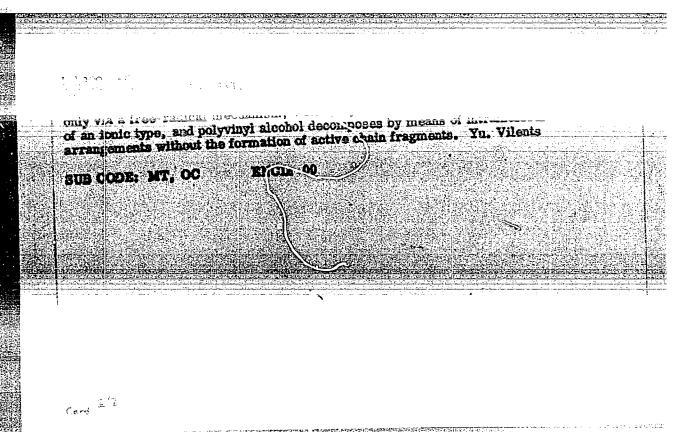


Fig. 1. Effect of urotropin on the properties of vulcanizates of SKN-40 containing resin 18. Ordinate a (curve 3) = residual elongation in %, ordinate b (curve 2) relative elongation in %, ordinate c (curve 1) = rupture strength in kgs/cm<sup>2</sup>; abscissa = content of urotropin in wt. %.

Card 3/3





KUKHARCHIK, M.M., aspirant; BARAMBOYM, N.K., doktor khimicheskikh nauk, prof.

Characteristics of the methods for the analysis of the aqueous solutions of polymers. Nauch. trudy MTILP no.29:117-126 '64. (MIRA 18:4)

1. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

BARAMBOVM. N.E., doktor khimicheskikh nauk, prof.

Machanical degradation of rigid polymers in the presence of various acceptors. Nauch. trudy MTILP no.29:127-131 '64.

1. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

ZHELTOVA, A.V., aspirant; BARAMBOYM, N.K., doktor khimicheskikh nauk, prof.

Studying the properties of the dispersions of protein copolymers.
Nauch. trudy MT:IP no.30:18-25 '164. (MIRA 18:6)

1. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

BARAMBOYM, N.K., doktor khimicheskikh nauk, prof.; KUKHARCHIK, M.M., aspirant

Investigating the properties of solutions of watersoluble polymer mixtures. Nauch. trudy MTILP nc.30:108-116 164.

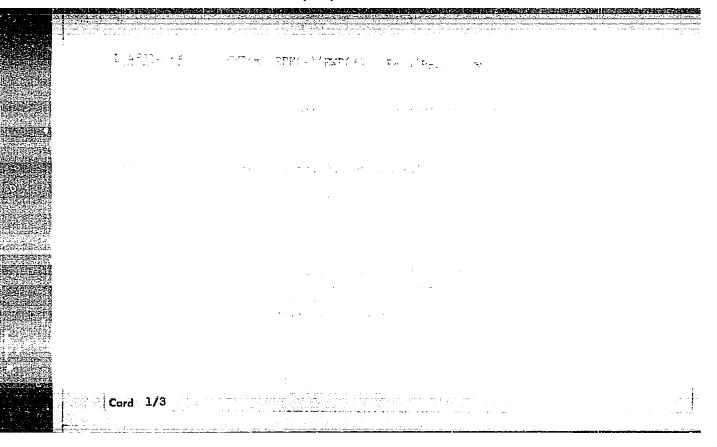
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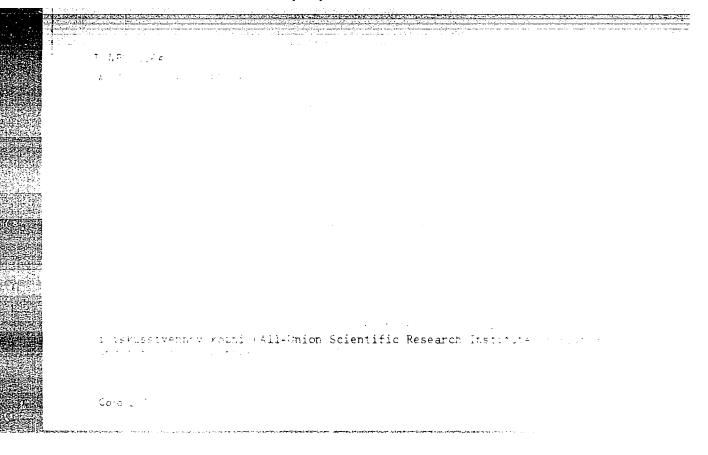
1. Kafedra fizicheskoy i kolloidnoy khimit Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

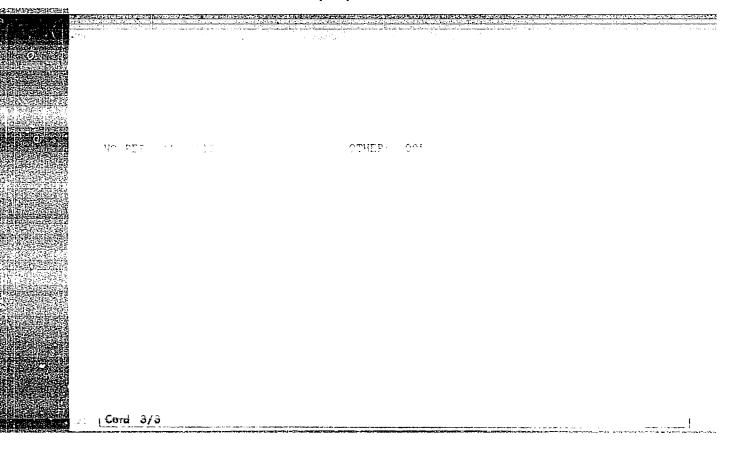
BARAMBOYM, N.K., doktor khimicheskikh nauk, prof.; SIMAKOV, Yu.S., assistent

Mechanical synthesis in the medium of crystallized monomers.
Nauch. trudy MTILP no.30:188-191 '64. (MIRA 18:6)

1. Kafedra fizicheskoy i kolloidnoy khimii Moskovs ogo tekhnologicheskogo instituta legkoy promyshlennosti.







L	38364-66 ENT(m)/EMP(v)/EMP(j)/T IJP(s) WW/RM UR/0323/66/000/001/0054/0057 SOURCE CODE: UR/0323/66/000/001/0054/0057
	CC NR: AP6019946 (A)
	AUTHOR: Protasov, V. G. (Engr.); Baramboym, N. K. (Prof.; Dr. of Chemical Sciences); Baranova, L. P. (Engr.); Sterligov, I. N. (Engr.)  We work Technological Institute
3	Daranova 2 - Tratitute
_	ORG: Physical and Colloidal Chemistry Department, Moscow Technological Industry of the Light Industry (Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti)
	study of adhesives based on modified polyethylene
	lagkov promyshlennosti, no. 1, 1900, J. J.
ŀ	SOURCE: IVUZ. Tekhnologiya isgrey providence in a static, footgear, polypropylene plastic, maleic TOPIC TAGS: adhesive, polyethylene plastic, footgear, polypropylene plastic, maleic
	anhydride anhydride
	anhydride  ABSTRACT: The possibility of using modified polyethylene as an adhesive for bonding materials was investigated. The mechanochemical modification footwear and sewing materials was investigated. The mechanochemical modification extruder; maleic anhydride (MA) was added as a
	of polyethylene involves the relevity, and stactic polypropylene the footwar and
	plasticizer. The properties combinations. Adhesive bonds in location and shear.
	sewing materials in various combinations. Adhesive bonds in lootwest in sewing materials in various combinations. Adhesive bonds in lootwest in sewing materials, for ply separation and shear, tested for ply separation, and in sewing materials, for ply separation and shear. It was found that as the atactic polypropylene content of polyethylene rises, the
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L 38364-66

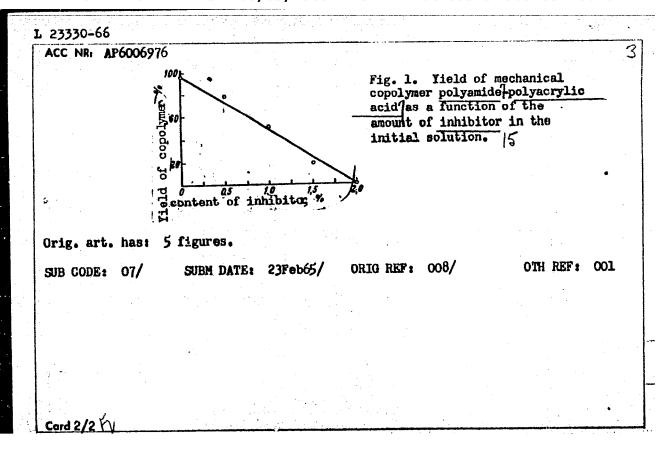
ACC NR: AP6019946

resistance to ply separation increases; this is attributed to the plasticizing effect of APP. The addition of MA to the adhesive composition increases the adhesive strength by increasing the polarity of polyethylene and atactic polypropylene (by forming carboxyl groups). It is concluded that the use of modified polyethylene offers attractive new prospects for the production of inexpensive and efficient adhesives for the footwear and clothing industry. Orig. art. has: 2 figures and 2

SUB CODE: 11/ SUBM DATE: 20Aug65/ ORIG REF: 004/

Card 2/2 vmb

5	
1	<u>. 23330-66</u> ENT(m)/ENP(j)/T WW/RM
	ACC NR: AP6006976 (A) SOUNCE CODE: UR/0190/66/008/002/0235/0239
	AUTHORS: Baramboym, N. K.; Simakov, Yu. S.
	ORG: Moscow Technological Institute for Light Industry (Moskovskiy tekhnologicheskiy
	institut legkoy promyshlennosti)
	TITLE: Mechanical synthesis of copolymers in frozen solutions  37
	SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 2, 1966, 235-239
	TOPIC TAGS: copolymerization, free radical, polyamide/ AK 60/40 polyamide
	ABSTRACT: Free radicals formed during the dispersion process of a frozen solution of polymer and monomer have been employed in mechanical synthesis of copolymers. Mixed to have have been employed in mechanical synthesis of copolymers. Mixed to have have have as polymer-initiator, and acrylic acid (II) served as monomer-solvent. A 25% solution of I in II, prepared at room temperature, was frozen in liquid nitrogen or dry ice and dispersed in a vibrating mill. A solid, colorless product was formed after one minute. Dispersion in water yielded 70% of a gellike insoluble copolymer which is apparently a mixture of block and graft copolymers. Free radical mechanism of the copolymerization process is supported by inhibition of copolymerization in the presence of quinone, as can be seen in Fig. 1. However, a partial ionic mechanism is not excluded. This mechanism of mechanical copolymerization seems to be general for cross-linked systems.
	Cord 1/2



ACC NR. ARGO2092/

SOURCE CODE: UR/0196/66/000/002/B005/B006

AUTHOR: Baramboym, N. K.; Moryakov, V. Ya; Kuklin, E. D.

TITLE: Investigation of electroconducting hydrophilic polymerfilms

SOURCE: Ref. zh. Elektrotekhn i energ, Abs. 2B26

REF SOURCE: Nauch. tr. Mosk. tekhnol. in-t legkoy prom-sti,vyp. 31, 1965, 67-72

TOPIC TAGS: microelectronic thin film, polymer physical property, polyvinyl alcohol

ABSTRACT: The properties of films made from polyvinyl alcohol filled with colloidal graphite have been studied. The resistivity of these films is minimal when the graphite content is 70%. The degree of intumescence, tearing strength, and elongation monotonously decrease while relative viscosity increases, when the graphite content increases. Introduction of a plasticizer (glycerin) tends to increase the film resistivity. The extremal dependence of the electric conductivity on the degree of fill and the concentration of source solution is connected with structural changes in the graphite lattice distributed in the polymer. Four figures. Cne Table. Bibliography of 3 titles. L. Zybov [Translation of abstract]

SUB CODE: 09, 07

Card 1/1

VDC: 621.315.5

PISARENKO, Aleksandr Pavlovich, prof.; POSPELOVA, Kseniya Aleksandrovna, dots.; YAKOVLEV, Aleksandr Georgiyevich, dots.; VOYUTSKIY, S.S., prof., retsenzent; NAZAROV, V.I., prof., retsenzent; TAUEMAN, S.S., prof., retsenzent; BARAMBOYM, N.K., prof., retsenzent; STUKOVNIN, I.D., red. izd-va; YEZHOVA, L.L., tekhn. red.

[Course in colloid chemistry] Kurs kolloidnoi khimii. Moskva, Gos.izd-vo "Vysshaia shkola," 1961. 241 p. (MIRA 14:12) (Colloids)

KUKHARCHIK, M.M., aspirant; BARAMBOYM, N.K., prof., doktor khim. nauk

Basic characteristics of the solutions of polymer mixtures. Nauch. trudy MTILP 25:106-117 '62. (MIRA 16:8)

1. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

KURDUBOV, Yu.F., assistent; BARAMBOYM, N.K., doktor khim. nauk, prof.

Use of the fractions of lignin obtained by hydrolysis as reinforcing agents in the manufacture of synthetic rubber. Nauch. trudy MTILP 25:154-158 '62. (MIRA 16:8)

l. Kafedra fizicheskoy i kolloidnoy khimii Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

BARAMBOYM, N.K., doktor khim. nauk, prof.; MALOSHUK, Yu.S., inzh.

Investigating the kinetics of the permeability to moisture of polymer films at variable drops of humidity. Izv. vys. ucheb. zav.; tekh. leg. prom. no.4:39-45 '63. (MIRA 16:10)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy fizicheskoy i kolloidnoy khimii.

MCHEDLISHVILI, G.I.; BARAMIDZE, D.G.

Functional characteristics of small arteries in the cerebral cortex.

Dokl. AN SSSR 163 no.2: 529-532 J1 155. (MIRA 18:7)

1. Institut fiziologii AN GruzSSR. Submitted September 24, 1964.

SKRIPNIK, Ya. P.; LERNER, I.M.; KONKIN, A.V.; BARAMIDZE, G.A.

Manufacturing protein fodder concentrates, antibiotics, and vitamins from alcohol production wastes. Spirt.prom. 27 no.4:21-25 '61. (MIRA 14:6) (Distilling industries-By-products)

BARAMIDZE, G.K., prof., doktor tekhn. nauk, red.; ASATIANI, L.R., red.; KALANDADZE, V.A., red.; PESVIANIDZE, A.V., red.; STEPANOV, A.V., red.; SULABERIDZE, Sh., red.izd-va; DZOTSENIDZE, Sh., tekhn. red.

[Ropeways] Kanatnye dorogi; sbornik statei. Tbilisi, Gos.izd-vo "Sabchota Sakartvelo," 1961. 286 p. (MIRA 15:6) (Cableways)

44155

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8/181/62/004/010/050/063 B102/B112

AUTHORS:

Baramidze, G. A., Gurgenishvili, G. Ye., and Khutsishvili, G. R.

TITLE:

Quantum theory of cyclotron resonance in a degenerate band

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2958-2963

TEXT: According to Luttinger (Phys. Rev. 102, 1030, 1956) the hole levels in the degenerate valence band of germanium can be divided into four groups, two of which (a+,b+) appertain to light and two (a-,b-) to heavy holes. If the initially applied magnetic field is crossed by an alternating electric field then cyclotron resonance absorption takes place and, as shown by Goodman (Phys. Rev. 122, 397, 1961), transitions take place not only between levels of one group but also between at and a or between b+ and b-. If the alternating electric field is applied along the magnetic field then transitions between the level groups a and b are excited as is shown in the present paper. The probabilities of the various cyclotron transitions possible are calculated. The interaction between the holes and the alternating field is described by

Card 1/5

Quantum theory of cyclotron

s/181/62/004/010/050/063

$$F = \mathcal{K}\left(\mathbf{k} + \frac{e}{c}\mathbf{A}\right) - \mathcal{K}\left(\mathbf{k}\right) = \frac{\partial \mathcal{K}\left(\mathbf{k}\right)}{\partial \mathbf{k}} \cdot \frac{e}{c}\mathbf{A},\tag{1}$$

where  $\mathcal{H}(\vec{k})$  is the hole Hamiltonian in the constant magnetic field,  $\vec{k}$  the momentum of the holes without alternating field and A the vector potential of the incident wave;  $F = Ve^{-i\omega t} + V^{+} e^{i\omega t}$ ;  $V = \frac{e}{c} \frac{\partial \mathcal{L}(\vec{k})}{\partial \vec{k}} \stackrel{?}{\rightarrow} 1$ 

transition probability per unit time is given by  $W(i\to f,\;\omega)=\frac{2\pi}{\hbar^2}|(f|V|i)|^2\varphi(\omega),$ 

$$W(i \to f, \omega) = \frac{2\pi}{h^2} |(f|V|i)|^2 \varphi(\omega), \tag{6},$$

 $\phi(\omega)$  gives the line shape. It is obvious that in the case of a nondegenerate band with isotropic square dispersion law  $(\mathcal{L}(\vec{k}) = k^2/2m^*$  and  $V = \vec{e}k\vec{A}_1/m^*c)$  a field  $\vec{E} = 2\vec{E}_1\cos\omega t$ parallel to the magnetic field causes no transition. A vertical field

however, does cause such transitions:

 $W(n \longleftrightarrow n+1, \ \omega) = \frac{\pi ce E_1^2}{hH}(n+1) \varphi(\omega).$ (12);

Card 2/5

Quantum theory of cyclotron ...

S/181/62/004/010/050/063 B102/B112

 $\vec{A}_1 = -ic\vec{E}_1/\omega$ . The cyclotron transitions in the degenerate valence band of germanium are studied.  $\gamma_2 = \gamma_3 = \bar{\gamma}$  and q = 0 is assumed for the Luttinger parameter of the hole Hamiltonian (spherical symmetry). Thus

$$\mathcal{H}(\mathbf{k}) = \frac{1}{m} \left\{ \left( \gamma_1 + \frac{5}{2} \, \gamma \right) \frac{k^{\gamma}}{2} - \gamma \left( \mathbf{k} \, \mathbf{J} \right)^2 + \left( \mathbf{x} - \frac{\gamma}{2} \right) \frac{e}{c} \, \mathbf{J} \mathbf{H} \right\}. \tag{14) and}$$

$$V = \frac{e}{mc} \left\{ \left( \gamma_1 + \frac{5}{2} \, \gamma \right) (k_x A_x + k_y A_y) - \gamma \left[ (k_x J_x + k_y J_y) (\mathbf{A} \, \mathbf{J}) + \frac{1}{2} \left( \mathbf{A} \, \mathbf{J} \right) (k_x J_x + k_y J_y) \right] \right\}. \tag{17}$$

are obtained. If the electric field is perpendicular to the magnetic field then

$$V_{\perp} = \frac{eA}{mc} \left\{ \left[ \gamma_1 + \gamma \left( \frac{5}{2} - 2J_z^2 \right) \right] k_z - \gamma \left( J_z J_y + J_y J_z \right) k_y \right\}. \tag{18}$$

and the possible transitions are

$$a^{\pm}(n) \longleftrightarrow a^{\pm}(n+1), \quad b^{\pm}(n) \longleftrightarrow b^{\pm}(n+1),$$
  
 $a^{\pm}(n) \longleftrightarrow a^{\mp}(n+1), \quad b^{\pm}(n) \longleftrightarrow b^{\mp}(n+1).$ 

Card 3/5

Quantum theory of cyclotron ...

S/181/62/004/010/050/063 B102/B112

In the case of parallel fields

$$V_{\mathbf{i}} = -\frac{eA}{mc} \tilde{\gamma} \left[ (\int_{z} \int_{s} + \int_{s} \int_{z}) k_{z} + (\int_{y} \int_{s} + \int_{s} \int_{y}) k_{y} \right]. \tag{19}$$

and the possible transitions are

$$a^{\pm}(n) \longleftrightarrow b^{\pm}(n+1), \quad a^{\pm}(n) \longleftrightarrow b^{\mp}(n+1).$$

At small quantum numbers n all possible transitions have probabilities amounting to one order of magnitude. For  $n \ge 1$  the transition probabilities for  $a + (n) \longleftrightarrow b + (n+1)$  tend to zero as n increases and the frequencies are independent of n. The transition probabilities of levels of light and heavy holes do not tend to zero as n increases and the frequencies are dependent on n. The peaks of the latter disappear against those of the ordinary cyclotron transitions so that if the n are sufficiently large only two peaks will be obtained that belong to transitions between neighboring levels of one group. There are 2 tables.

Card 4/5

Quantum theory of cyclotron ...

8/181/62/004/010/050/063 B102/B112

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ASSOCIATION: Institut fiziki AN Gruz. SSR, Tbilisi (Institute of Physics

AS GruzSSR, Tbilisi)

SUBMITTED:

June 25, 1962

Card 5/5

BARAMIDZE, K.M.

BARANIDZB. K.N.

Studying electric brakes of a mine hoisting machine. Trudy Inst. met. i gor. dela AN Grus. SSR 2:147-173 '49. (MIRA 11:1) (Mine hoisting-Brakes)

BARAMIDZE, K. M. ...

BARAMIDZE, K. M. -- "INVESTIGATION OF THE PROCESS OF AUTOMATIZING A MINE HOISTING MACHINE WITH A CENTRIFUGAL BRAKE." SUB II JUL 52, INST OF MINING, ACAD SCI USSR (DISSERTATION FOR THE DEGREE OF DOCTOR IN TECHNICAL SCIENCES)

SO: VECHERNAYA MOSKVA, JANUARY DECEMBER 1952

DZIDZIGURI, A.A.; BARAMIDZE, K.M., red.; BAKRADZE, D.S., red.izd-va; TODUA, A.R., tekhn.red.

[Operation of mine fans in complex systems] Rabota shakhtnykh ventiliatorov v slozhnykh setiakh. Tbilisi, Izd-vo Akad.nauk Gruzinskoi SSR, 1958. 165 p. (MIRA 11:12) (Mine ventilation) (Fans, Mechanical)

BARAMIDZE, K.M., prof.; PESVIANIDZE, A.V., dotsent; RUKHADZE, I.T., dotsent; ASATIANI, L.R., inzh.

(MIRA 12:8)

1. Gruzinskiy politekhnicheskiy institut. (Georgia--Cableways) (Automatic control)

BARAMIDZE, K.; DZIDZIGURI, A.

Developments in mining engineering in Soviet Georgia. Trudy Inst.met. AN Gruz.SSR 9:19-30 '58. (NIRA 12:8) (Georgia--Mining engineering)

ARESADZE, B.I.; AGOSHKOV, M.I.; BARAMIDZE, K.M.; DZIDZIGURI, A.A; FADDEYEV, B.V.; TSiskarishvili, E.I.

Konstantin Minovich Charkviani; an obituray. Gor. zhur. no.5:76 My ¹60. (MIRA 14:3) (Charkviani, Konstantin Minovich, 1880-1960)

## BARAMIDZE, K.M.; ASATIANI, L.R.

"Electric lighting in coal mines" by R.IA. Naerow. Reviewed by K.M. Baramidse, L.R. Asatiani. Ugol: 35 no.10:71 0 '60.

(MIRA 13:10)

(Mine lighting)

(Maerov, R.IA.)

BARAMIDZE, Konstantin Moreovevich; KOGAN, Iosif Yakovlevich; BARAT, I.Ye., kand.tekhm.nauk, retsenzent; MKKLER, A.G., kand.tekhm.nauk, retsenzent; KASTAL'SKIY, A.A., inzh., red.; NAKHIMSON, V.A., red.izd-va; SMIRNOVA, G., tekhn.red.

[Suspended passenger cable railroads] Passazhirskie podvesnye kanatnye dorogi. Moskva, Mashgiz, 1962. 215 p.

(MIRA 15:4)

(Railroads, Cable)

# "APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000103420018-2

USSR/Electronics - Radio receivers and transmitters

Card 1/1 Pub. 89 - 10/29

Authors : Azat'yan, A.; Ushanev, V.; Levit, N.; Sodin, L, and Baramidze, L.

Title : "Urozhay Y-2" radio receiver and transmitter

Periodical: Radio 9, 24-26, Sep 1954

Abstract: A detailed description, with circuit diagrams, of the "Urozhay Y-2" radio transmitter and receiver is presented. It is a portable transmitting and receiving amplitude-modulation station, redesigned from a similar set name the "Urozhay Y-1". The improvements of the converted set, its auxiliary

equipment, power-supply and operation are described in detail. Diagrams.

Institution: ...

Submitted : ...

ACCESSION NR: AP4039676

5/0181/64/005/006/1825/1827

AUTHORS: Kurdiani, N. I.; Khavtasi, L. G.; Barandze, N. V.

TITLE: The effect of doping on the reflection spectrum of indium antimonide in the fundamental band

SOURCE: Fizika tverdogo tela, v. 6, no. 6, 1964, 1825-1827

TOPIC TAGS: indium antimonide, doping, semiconductor, IPO 12 attachment, IKS 12 spectrometer, SF 4 spectrophotometer, light reflection, Brillouin zone, conduction band

ABSTRACT: The authors measured the reflection of light from carefully polished surfaces of InSb doped with Zn and Te during growth. The measurements were made on an IPO-12 attachment to an IKS-12 spectrometer, and also on an SF-4 spectrophotometer in the visible and near-infrared parts of the spectrum at room temperature Measurements on both p- and n-type samples indicate two peaks in the reflection coefficient. These are related to the optical transition  $(L_3 \rightarrow L_1)$  between the extremes of the valence and conduction bands and to the transition from the valence band, split off by spin-orbit interaction, to the conduction band at the same values of the wave vector. The energy gap between the peaks corresponds to the

ACCESSION NR: AP4039676

value of spin-orbit splitting at the edge of the Brillouin band, which is equal to two-thirds of this splitting in the center of the band. With increase in impurity concentration, the reflection maxima shift toward the longer wavelengths. The energy gap is preserved in this shift, indicating that the value of spin-orbit splitting at the edge of the Brillouin band does not change with doping (within the investigated limits). A reduction of the energy gap during doping may be associated with the appearance of a "tail" in the density state in the forbidden band. It may also be due to Coulomb interaction between carriers during strong doping. "The authors express their thanks to Professor I. A. Mirtskhulav and Professor V. L. Bonch-Bruyevich for their interest in the work and for valuable orig. art. has: 1 figure.

ASSOCIATION: Tbilisskiy gosudarstvenny\*y universitet (Tiflis State University)

SUBMITTED: 28Nov63

ENCL: 00

SUB CODE: EC

NO REF SOV: 006

OTHER: OOL

Card 2/2

BARAMIDZE, T.G.

Function of the thyroid gland in acute radiation sickness. Med. rad. 5 no.12:32-36 '60. (MIRA 14:3) (RADIATION SICKNESS) (THYROID GLAND)

BARAMIDZE, T.G.

Acute radiation sickness caused by X rays and beta rays of radioactive phosphorus. Soob. AN Gruz. SSR 27 no.3:347-354 S \*61.

(MIRA 15:3)

1. Tbilisskiy institut usovershenstvovaniya vrachey. Predstavleno akademikom I.Ya.Tatishvili.

(X RAYS--PHYSIOLOGICAL EFFECT) (BETA RAYS--PHYSIOLOGICAL EFFECT)

### BARAMIDZE, T. G.

Characteristics of the course of radiation sickness following internal irradiation with  $\beta$ -rays from radioactive phosphorus. Med. rad. no.2:87-89 162. (MIRA 15:7)

1. Iz kafedry rentgenologii i meditsinskoy radiologii (zav. - zasluzhennyy deyatel' nauki prof. G. P. Nazarishvili) Tbilisskogo gosudarstvennogo instituta usovershenstvovaniya vrachey.

(RADIATION SICKNESS) (PHOSPHORUS\_ISOTOPES)

BARAMIDZE, T.G.

Reaction of the blood and bone marrow following combined irradi-ation with X rays and radioactive phosphorus. Trudy Tbil. GIDUV (MIRA 16:2) 6:381-392 '62.

(HLOOD—EXAMINATION) (MARROW—DISEASES)

(RADIATION SIGNNESS)

BARAMIDZE, T.G.; KATAMADZE, N.M.; Prinimali uchastiye: BURDULI, L.; TEVZADZE, I.; YELISEYEVA, L.

Working conditions of personnel exposed to ionizing radiations. Soob. AN Gruz. SSR 40 no.2:463-469 N '65. (MIRA 19:1)

1. Institut onkologii, Tbilisi. Submitted Feb. 26, 1965.

## "APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000103420018-2

<u>L 38257-66</u> EWT(m) SOURCE CODE: UR/02	51/65/040/002/0463/0469
ACC NR: AP6028654	35
AUTHOR: Baramidze, T. G.; Katamadze, N. M.	ं ड
ORG: Institute of Oncology, Tbilisi (Institut onkologii)	
ORG: Institute of the Grant of activities	involving applications
ORG: Institute of Uncology, Island	
SOURCE: AN GruzSSR. Soobshcheniya, v. 40, no. 2, 1965, 463-	469
TOPIC TAGS: radiation biologic effect, working condition, to dosimetry, leukopenia, blood disease, radiation protection dosimetry, leukopenia, blood disease, radiation protection ABSTRACT: The exposure to radiation and state of health of material personnel employed at the radiological, x-ray diagnostic, and personnel employed at the radiological personnel employed em	nedical and auxiliary  1 x-ray and gamma- 2 of Oncology and the
therapeutic subdivisions of the Scientific Research Institutes therapeutic subdivisions of the Ministry of Health, Georgian SC Oncological Dispensary of the Ministry of Health, Georgian SC Oncological Dispensary of the Ministry of Health, Georgian SC Oncological Dispensary of the Ministry of Health, Georgian SC Oncological Dispensary of the breast pocket or in protection of the wrist were applied and periodic blood tests carrievel of the wrist were applied	ried out. Determination es were exposed indicated rule, although there of cases. It was
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L 38257-66

#### ACC NR: AP6028654

cases (six persons), pronounced leukopenia was observed (3,000-3,500 cells per mm<sup>2</sup>), but the condition was transient and did not involve radiation sickness. In 12% of cases the reaction of erythrocyte sedimentation was accelerated. On the basis of the observations made, use of equipment for remote control in connection with the washing of Ra applicators employed in the gynecological division of the Institute of Oncology is recommended and also the use of screens to protect personnel. This article was presented by Academician I. Ya. Tatishvili on 26 February 1965. L. Burduli, I. Tevzadze, and L. Yeliseyeva gave technical assistance. Orig. art. has: 5 tables. [JPRS: 36,932]

SUB CODE: 06 / SUBM DATE: 26Feb65

Card 2/2/114P

#### BARAMIDZE, V.

With the help of volunteer workers. Pozh.delo 9 no.8:30 Ag (MIRA 16:9)

1. Zamestitel' nachal'nika Upravleniya pozharnoy okhrany Ministerstva okhrany obshchestvennogo poryadka Gruzinskoy SSR. (Georgia—Fire prevention)

#### BARAMIDZE, V

Decrease in the number of fires. Pozh. delo 9 no.4:29 Ap 163. (MIRA 16:4)

1. Zamestitel nachal nika Upravleniya pozharnoy okhrany Gruzinskoy SSR.

(Georgia-Fires and fire prevention)

S/119/60/000/011/002/009 B012/B054

9.6000 (1099, 1159, 1067)

AUTHORS: Baramidze. V.

Baramidze, V. A. and Gol'dreyer, I. G.

TITLE:

Automatic Static d.c. Bridge

PERIODICAL: Priborostroyeniye, 1960, No. 11, pp. 3 - 5

TEXT: Fig. 1a shows the circuit diagram of an a.c. bridge; it is pointed out that a.d.c. bridge without mobile parts cannot be built on such a principle. Fig. 1b shows the circuit diagram of such an automatic d.c. bridge (Ref. 1, author's certificate No. 124031, 1959). This bridge is described here, Strictly speaking, it is a voltage stabilizer of the compensation type whose measuring element consists of the measuring resistor R and R the nonlinear resistor R, and two linear resistors R and R. The amplifying and circuit elements of the stabilizer are located in the amplifier V in this circuit. The instrument measures the current generated by the output voltage of the stabilizer and by the stable compensating voltage E. With a change in R meas, the balance of the measuring element is disturbed, a voltage is formed at the amplifier input, and the output Card 1/6

Automatic Static d.c. Bridge

S/119/60/000/011/002/009 B012/B054

voltage of the stabilizer is changed to a value at which the static resistance of  $R_U$  becomes approximately equal to  $R_{meas}$  (at  $R_1 \approx R_d$ ). Thus, the indications of the measuring instrument are proportional to the resistance measured. The automatic d.c. bridge described can be equipped with electron tubes or with semiconductor triodes. The accuracy of conversion of nonelectric to electric quantities is determined by the accuracy of voltage stabilization on  $\mathbf{R}_{\overline{\mathbf{U}}}$  . If a gas-discharge stabilizer is used as  $R_{\Pi}$ , accuracy is about 1%, whereas it may be some hundredth parts of a percent with the use of silicon stabilizers. The maximum zero drift in the amplifying element of the stabilizer is 1-2 mv, since this element has a strong voltage feedback with a coupling factor  $\beta \approx 0.5$ . Fig.2 shows the circuit diagrams of three variants of the automatic d.c.bridge in the form of d.c. amplifiers with strong negative voltage feedback proportional to the measuring resistor  $\mathbf{R}_{\text{meas}}$  . The first two circuits differ by the spot to which the resistor sensitive to nonelectric quantities is connected. The third circuit is a combination of the first two. The first circuit is recommended for measuring or controlling Card 2/6 .X

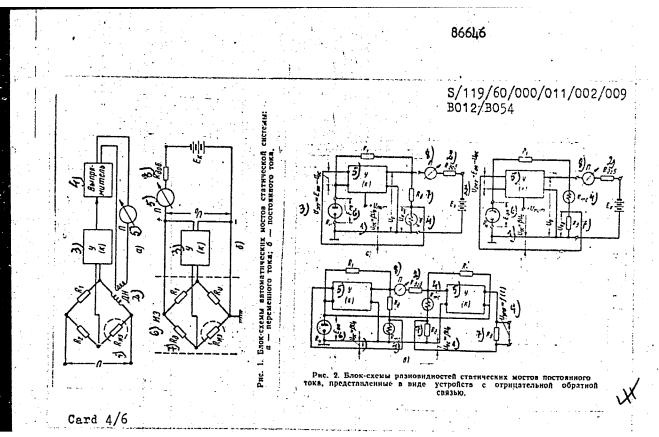
Automatic Static d.c. Bridge

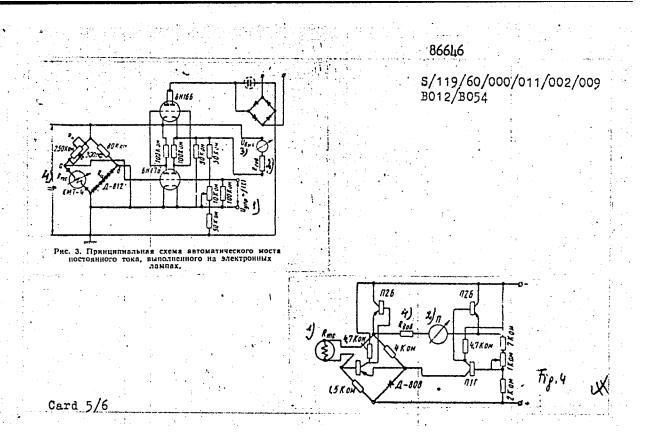
's/119/60/000/011/002/009 B012/B054

temperatures changing in the negative direction, the second for temperature deviations from the rated value. In the third circuit, a control voltage U control = f(t) is applied to the input circuit of one of the amplifying elements, in series with the regulating voltage. This makes it possible to control the program of nonelectric quantities. Figs. 3 and 4 show two basic circuits of automatic d.c.bridges with electron tubes (Fig. 3) and with semiconductor triodes (Fig. 4). They are composed according to the circuit shown in Fig.2a. It is pointed out that these bridges can also be used as automatic regulators. In the circuit of Fig.3, an additional control voltage U control = f(t) can be applied to the output of the amplifying element to realize a program control. There are 4 figures and 3 Soviet references.

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Card 3/6





S/119/60/000/011/002/009 B012/B054

Legend to Fig. 1: Block diagrams of automatic static-system bridges:
a) a.c., b) d.c. 1) R<sub>meas</sub>, 2) saturation impedance, 3) amplifier,
4) rectifier, 5) measuring instrument, 6) measuring element, 7) R<sub>d</sub>,
8) resistance of the measuring instrument.

Legend to Fig. 2: Block diagrams of static d.c.bridge variants, shown in the form of devices with negative feedback. 1) Feedback voltage, 2) resistance of the measuring instrument, 3) voltage to be controlled,
4) resistance of the thermistor, 5) amplifier, 6) reference voltage,
7) R<sub>d</sub>, 8) measuring instrument, 9) control voltage U<sub>control</sub>.

Legend to Fig. 3: Basic circuit of an automatic d.c.bridge with electron tubes: 1) Control voltage U<sub>control</sub>, 2) resistance of the measuring instrument,
8) U<sub>output</sub>, 4) resistance of the thermistor, 5) Kom are kilochms,
6) W\(\tilde{\Phi}\) are picofarads.

Legend to Fig. 4: Basic scheme of an automatic d.c.bridge with semiconductor triodes: 1) Resistance of the thermistor, 2) measuring instrument.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000103420018-2"

3) Kom are kiloohms, 4) resistance of the measuring instrument.

#### BARAMIDZE, V.A.

Principles of the construction of automatic electron-beam stabilizing systems of receiving and transmitting electron-beam tubes. Radiotekhnika 19 no. 4:36-15 Ap '64.

(MIRA 17:5)

l. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva radiotekhniki i elektrosvyazi imeni Popova.

BAR AMIDZE, Vili Aleksandrovich, inzh.; MOROZOV, I.V., red.

[Self-stabilizing transistor amplifiers] Samostabiliziruiushchiesia tranzistornye usiliteli. Leningrad, 1964. 16 p. (Leningradskii dom nauchno-tekhni heskoi propagandy. Obmen peredovym opytom. Seriia: Pribory i elementy avtomatiki, no.3) (MIRA 17:7)

ACCESSION NR: AP4029459

\$/0108/64/019/004/0036/0045

AUTHOR: Baramidze, V. A. (Active member)

TITLE: Principles of automatic systems stabilizing the beam current in receiving and transmitting electron-beam tubes

SOURCE: Radiotekhnika, v. 19, no. 4, 1964, 36-45

TOPIC TAGS: television, TV, TV receiving tube, TV transmitting tube, kinescope

ABSTRACT: At present, beam-current stabilization is ensured by stabilizing anode and heater supply voltages; this does not take care of aging and ambient-temperature effects. The author's stabilization schemes are based on a voltage feedback with the voltage drop taken from a resistor inserted into the cathode circuit of the electron-beam tube. Beam-current instability in a negative-feedback electron-beam tube is theoretically analyzed. A few practical schemes

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with an (electron-tube or transistorized) amplifier introduced into the negative-feedback circuit are considered. Experimental schemes are claimed to have the cathode beam current stable to within  $\pm 0.3\%$  or 0.5% with a supply voltage variation of  $\pm 10\%$ . Hence, a nonstabilized power supply to a tv tube (e.g., LI-23) is held possible. Orig. art. has: 8 figures and 24 formulas.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi (Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 20Oct62

DATE ACQ: 30Apr64

ENCL: 00

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NO REF SOV: 003

OTHER: 002

Card 2/2

LITVINENKO, Ye.A., kand.tekhn.nauk; prinimali uchastiye: LEKAREV,
V.A., gornyy insh.; KUZ'MENKO, V.P., gornyy insh.; STEPANOV,
V.I., student; BARAMIKOV, A.A., student

Control of methane emission in mine sections. Ugol' Ukr. 4 no.5:14-16 My '60. (MIRA 13:8)

1. Khar'kovskiy gornyy institut. (Donets Basin-Mine gases)

#### BARAMOW, Piotr

On pseudotumors of the parotid gland. Czas. stomat. 18 no.10: 1209-1210 0 '65.

1. Z Poradni Chorob Chirurgicznych Dzielnicowej Przychodni Obwodowej II, Warszawa Praga-Poludnie (Kierownik: dr. K. Brzozowski).

L 15701-66 EVIT(1)/T JK/JXT(cz) SOURCE CODE: UR/0242/65/000/008/0066/0067 ACC NR: AP6003476

AUTHOR: Mevzos, M. P.; Baramykova, L. A.; Bgasheva, V. S.; Mevzos, L. M.; Cholokhov, V. D.

ORG: Tashkent Oblast sanepidstantsiya (Tashkentskaya oblastnaya sanepidstantsiya)

TITLE: Pappataci fever in Tashkent Oblast

SOURCE: Meditsinskiy zhurnal Uzbekistana, no. 8, 1965, 66-67

TOPIC TAGS: epidemiology, disease incidence, virus disease, clinical medicine

ABSTRACT: An outbreak of pappataci fever which occurred in Begovat, Tashkent Oblast in the summer of 1963 is described. The last known outbreak in this area had occurred in 1946. At first the disease was diagnosed as influenza because of the similarity of symptoms. However, some of the patients had scars from mosquito bites and did not exhibit any upper respiratory symptoms, lung inflammations or enlargement of spleen or liver. Epidemiologically, the disease was not confined to any particular age group, did not run in families or other groups nor could it be connected with agricultural work or with swimming in open waters. The presence of pap-

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ACC NR: AP6003476

pataci flies in this area suggested the possibility of pappataci fever, a suspicion later confirmed by virological studies. The source of the infection is thought to be the numerous animal burrows found in the surrounding uncultivated land. To prevent future outbreaks it is suggested that the responsible republic institutes devote their efforts to the elucidation of the natural sources of infection and to the study of diagnostic techniques for careful differentiation of pappataci fever from influenza and other similar diseases.

SUB CODE: 06/ SUBM DATE: 28May64/ ORIG REF: 000/ OTH REF: 000

Card 2/2 11/25

LUZHIN, B.P.; BARAMZIN, N.A.

ਰਸ਼ਨਮਟਰਾਜ਼ ਬ. ਨ.

Materials on the systematics of the Amu Darya trout from the basin of the Kysyl-su River (Alai Valley, Pamirs), Trudy Inst.sool.i paraz.AN Kir.SSR no.4:7-11 '55. (MIRA 10:5) (Kysyl-Su Valley--Trout)

Baranzin, N.A.

TURDAKOV, F.A.; LUZHIN, B.P.; BARAMZIN, N.A.

Incubating fish eggs in a continuous and intermittant stream of running water. Trudy Inst. zool. i paraz. AN Kir. SSR no.6:3-20
157. (MIRA 11:3)

(Fish culture)